ESG MAX, ESG Plus, ESG Plus²

Tungsten Grinders

The best solution for a precise and fast preparation of tungsten electrodes. The perfect hand-held grinder for cutting, grinding and planing electrodes which are used in WIG/TIG welding machines. Consider country-specific regulations, standards and guidelines when using tungsten electrodes with thorium.

The powerful Hand-Tungsten-Grinder for grinding, facing and cutting.

One machine – complete electrode preparation:
- Grinding electrodes:
  - 4 different angles
  - 6 different electrode sizes
- Facing electrodes
- Cutting electrodes

The machines are available with a high-quality and powerful drive with 230 Volt and/or 110 Volt. Machines and accessories are delivered in a durable storage and shipping case.

- Repeatable points every time due to preset grinding angles
- Easy and fast to use
- Optimum preparation for orbital and manual welding
- Longitudinal grinding for optimum arc ignition and excellent arc stability
- Guarantees longer tool life and ease of ignition of the tungsten electrode
- Specially designed for one-off jobs on site
- Compact design, optimum resilience and perfect reproducibility
- Solid, functional design
- Precise orbital grinding
- Facility for easy trimming of the electrodes (optional)
- External dust extractor can be easily adapted
- Short preparation times with high grinding performance
- No adjustment needs to be done before operation

ADDITIONAL FEATURES ESG MAX:
- Lateral adjustment of the head for increased service life of the grinding wheel
- Grinding head with 72 holes: 36 holes for the grinding wheel with coarse grain, 36 holes for the grinding wheel with fine grain and cutting edge
- Continuously adjustable cutting device from 9.0 to 34.5 mm / 0.354" to 1.358" (available option)
- Including dust protection against grinding dust
- Adapter for extraction device for up to 96% less grinding dust particles (available option)
- Table mount included

ADDITIONAL FEATURES ESG PLUS² AND ESG MAX:
- Portable tungsten grinder with two different grinding wheels. This allows the electrode to be pre-ground with the coarse diamond wheel then finished with the fine diamond wheel.
### Scope of delivery / application range

<table>
<thead>
<tr>
<th>Code</th>
<th>ESG MAX</th>
<th>ESG PLUS</th>
<th>ESG PLUS²</th>
</tr>
</thead>
<tbody>
<tr>
<td>[230 V]</td>
<td>790 052 591</td>
<td>790 052 485</td>
<td>(15°/18°/22.5°/30°)</td>
</tr>
<tr>
<td></td>
<td>790 052 545</td>
<td>(15°/30°/45°/60°)</td>
<td></td>
</tr>
<tr>
<td>[110 V]</td>
<td>790 052 592</td>
<td>790 052 486</td>
<td>(15°/18°/22.5°/30°)</td>
</tr>
<tr>
<td></td>
<td>790 052 645</td>
<td>(15°/30°/45°/60°)</td>
<td></td>
</tr>
</tbody>
</table>

- **Tungsten grinder**: Pc. 1
- **Durable storage and shipping case**: Pc. 1
- **Grinding head for electrodes Ø 1.0 - 1.6 - 2.0 - 2.4 - 3.2 - 4.0 mm**: Pc. 1
- **(0.04" - 1/16" - 1/8" - 3/32" - 1/8" - 5/32")**
- **Grinding head for grinding angle 15° - 18° - 22.5° - 30° - 45° - 60°**: Pc. 1
- **Grinding head for grinding angle 15° - 18° - 22.5° - 30° or 15° - 30° - 45° - 60°**: Pc. 1
- **Diamond grinding wheel Fine (790 052 517)**: Pc. 1
- **Diamond grinding wheel Coarse (790 052 518)**: Pc. 1
- **Diamond grinding wheel Fine (790 052 487)**: Pc. 1
- **Diamond grinding wheel Coarse (790 052 550)**: Pc. 1
- **Table mounting plate**: Pc. 1
- **Tool to replace the grinding wheel**: Pc. 1
- **Operating instructions and spare parts list**: Set 1

### Technical data

<table>
<thead>
<tr>
<th>Dimensions (including motor)</th>
<th>ESG MAX</th>
<th>ESG PLUS</th>
<th>ESG PLUS²</th>
</tr>
</thead>
<tbody>
<tr>
<td>[mm]</td>
<td>Ø 65 x 350</td>
<td>Ø 65 x 350</td>
<td>Ø 65 x 350</td>
</tr>
<tr>
<td>[inch]</td>
<td>Ø 2.56 x 13.78</td>
<td>Ø 2.56 x 13.78</td>
<td>Ø 2.56 x 13.78</td>
</tr>
<tr>
<td>Power [W]</td>
<td>500</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Power-on time [%]</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Speed (Rotary speed) [rpm]</td>
<td>30,000</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Main supply cable (length) [m]</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Vibration level (EN 28662, part 1) [m/s²]</td>
<td>&lt; 2.5</td>
<td>&lt; 2.5</td>
<td>&lt; 2.5</td>
</tr>
<tr>
<td>Noise level at the workplace (Idle running), approx. [dB (A)]</td>
<td>83</td>
<td>83</td>
<td>83</td>
</tr>
</tbody>
</table>

*An electrode holder is required to grind electrodes with 4.0 mm (5/32") diameter (available option).*